

## SEQUENCE LISTING

09/857636

PCT/PTO 22 JAN 2002

&lt;110&gt; Dong, Zheng Xin

&lt;120&gt; Analogues of GLP-1

&lt;130&gt; 00537-186002

&lt;140&gt; US 09/857,636

&lt;141&gt; 2001-06-07

&lt;150&gt; PCT/EP99/09660

&lt;151&gt; 1999-12-07

&lt;150&gt; US 60/111,255

&lt;151&gt; 1998-12-07

&lt;150&gt; US 09/206,601

&lt;151&gt; 1998-12-07

&lt;160&gt; 415

&lt;170&gt; FastSEQ for Windows Version 4.0

&lt;210&gt; 1

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg

20

25

30

&lt;210&gt; 2

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Mutagen

&lt;221&gt; VARIANT

&lt;222&gt; 2, 29

&lt;223&gt; Xaa = Aib (alpha-aminoisobutyric acid)

&lt;221&gt; VARIANT

&lt;222&gt;

&lt;223&gt; this sequence has an amidated c-terminus

&lt;400&gt; 2

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

20

25

30

<210> 3  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 1  
 <223> Xaa = N-alpha-HEPES-His  
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesulfonic  
 acid)-histidine)

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 3  
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 4  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 1  
 <223> Xaa = Na-HEPA-His  
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-  
 histidine)

<221> VARIANT  
 <222> 2,29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 4  
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

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<210> 7
<211> 30
<212> PRT
<213> Artificial Sequence
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 9

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 10

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-dodecanesulfonyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 10

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 11

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa =

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## N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

&lt;221&gt; VARIANT

&lt;222&gt;

&lt;223&gt; this sequence has an amidated c-terminus

&lt;400&gt; 11

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

&lt;210&gt; 12

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Mutagen

&lt;221&gt; VARIANT

&lt;222&gt; 2, 29

&lt;223&gt; Xaa = Aib (alpha-aminoisobutyric acid)

&lt;221&gt; VARIANT

&lt;222&gt; 30

&lt;223&gt; Xaa = 1-(4-tetradecyl-piperazine)asparagine

&lt;221&gt; VARIANT

&lt;222&gt;

&lt;223&gt; this sequence has an amidated c-terminus

&lt;400&gt; 12

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

&lt;210&gt; 13

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Mutagen

&lt;221&gt; VARIANT

&lt;222&gt; 2, 29

&lt;223&gt; Xaa = Aib (alpha-aminoisobutyric acid)

&lt;221&gt; VARIANT

&lt;222&gt; 30

&lt;223&gt; Xaa = (1-tetradecylamino)asparagine

&lt;221&gt; VARIANT

&lt;222&gt;

&lt;223&gt; this sequence has an amidated c-terminus

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<400> 13  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
           1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
                   20                  25                  30

<210> 14  
 <211> 31  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222> 31  
 <223> Xaa = beta-alanine

<221> VARIANT  
 <222>  
 <223> Xaa = this sequence has a hydroxylated c-terminus

<400> 14  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
           1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa  
                   20                  25                  30

<210> 15  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has a hydroxylated c-terminus

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<400> 15  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
                   20                  25                  30

<210> 16  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 16  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg  
                   20                  25                  30

<210> 17  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2,29  
 <223> Xaa = alpha-aminoisobutyric acid

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 17  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                  25                  30

<210> 18  
 <211> 30  
 <212> PRT

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<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 18

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25						30		

<210> 19

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 19

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25						30		

<210> 20

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-alanine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 20  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                  25                  30

<210> 21  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2,29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 21  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
                   20                  25                  30

<210> 22  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 22

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<400> 24
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20             25             30

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1                    5                    10                    15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa  
                   20                    25                    30

<210> 27  
 <211> 33  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT  
 <222> 33  
 <223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 27  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                    5                    10                    15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Asp Xaa  
                   20                    25                    30  
 Xaa

<210> 28  
 <211> 31  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 31  
 <223> Xaa = Aun (11-aminoundecanoic acid)

<400> 28  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                    5                    10                    15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa  
                   20                    25                    30

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<210> 29  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 11, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<400> 29  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Xaa Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 30  
 <211> 33  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 31  
 <223> Xaa = D-Asp

<221> VARIANT  
 <222> 32  
 <223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT  
 <222> 33  
 <223> Xaa = Aun (11-aminoundecanoic acid)

<400> 30  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa  
 20 25 30  
 Xaa

<210> 31  
 <211> 30

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 "T0207"

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<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)
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<222>

<400> 33

<210> 34

<211> 30

<212> PRT

<220>

<221> VARIANT

&lt;222&gt; 29

<221> VARIANT

<222>

<400> 34

<210> 35

<211> 30

<212> PRT

<220>

<221> VARIANT

<222> 2

&lt;221&gt; VARIANT

<222> 29

<221> VARIANT

<222>

<400> 35

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Glu Gly  
1 5 10 15  
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg



30

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<210> 38
<211> 30
<212> PRT
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<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 38

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Lys	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Leu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 39

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = D-Arg

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 39

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Xaa		
			20					25					30		

<210> 40

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

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<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 31  
 <223> Xaa = D-Arg

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 40  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa  
           20                  25                  30

<210> 41  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 21  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 41  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg  
           20                  25                  30

<210> 42  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT

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<222> 2, 21  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29, 31  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 42  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg  
 20 25 30

<210> 43  
 <211> 33  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen  
 <221> VARIANT  
 <222> 2, 21  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29, 31  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 43  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg  
 20 25 30

Arg

<210> 44  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen  
 <221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 44  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Lys Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                  25                  30

<210> 45  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 45  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Lys Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                  25                  30

<210> 46  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

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<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

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&lt;222&gt;

&lt;223&gt; this sequence has an amidated c-terminus

&lt;400&gt; 46

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Gly	Arg
		20					25					30			

&lt;210&gt; 47

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Mutagen

&lt;221&gt; VARIANT

&lt;222&gt; 2

&lt;223&gt; Xaa = Aib (alpha-aminoisobutyric acid)

&lt;221&gt; VARIANT

&lt;222&gt; 29

&lt;223&gt; Xaa = beta-Ala (beta-alanine)

&lt;221&gt; VARIANT

&lt;222&gt;

&lt;223&gt; this sequence has an amidated c-terminus

&lt;400&gt; 47

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20					25					30			

&lt;210&gt; 48

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Mutagen

&lt;221&gt; VARIANT

&lt;222&gt; 2

&lt;223&gt; Xaa = Aib (alpha-aminoisobutyric acid)

&lt;221&gt; VARIANT

&lt;222&gt; 29

&lt;223&gt; Xaa = D-Arg

&lt;221&gt; VARIANT

&lt;222&gt;

&lt;223&gt; this sequence has an amidated c-terminus

&lt;400&gt; 48

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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<210> 51





<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 22, 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 53

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Xaa	Ile	Ala	Xaa	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 54

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 54

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Xaa	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 55

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

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His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15  
Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg



<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-dodecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 60  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 61  
 <211> 31  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 31  
 <223> Xaa = O-decanoyl-serine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 61  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa  
 20 25 30

<210> 62  
 <211> 33  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

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<221> VARIANT  
 <222> 2, 21  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29, 31  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 33  
 <223> Xaa = N-epsilon-octanoyl-lysine

<400> 62  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg  
 20 25 30  
 Xaa

<210> 63  
 <211> 31  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 31  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 63  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa  
 20 25 30

<210> 64  
 <211> 31  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

"FOOT" SEQUENCE

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 31  
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 64  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa  
                   20                  25                  30

<210> 65  
 <211> 31  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 31  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 65  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa  
                   20                  25                  30

<210> 66  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

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<220>  
 <223> Mutagen  
 <221> VARIANT  
 <222> 2  
 <223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 66  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg  
           20                  25                  30

<210> 67  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen  
 <221> VARIANT  
 <222> 1  
 <223> Xaa = Tma-His (N,N-tetramethylamidino-histidine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 67  
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg  
           20                  25                  30

<210> 68  
 <211> 31  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen  
 <221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

0020T"9E9E60

<222> 31  
 <223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 68  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa  
                   20                  25                  30

<210> 69  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 32  
 <223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 69  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Gly Xaa  
                   20                  25                  30

<210> 70  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29

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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                                  25                                  30

<210> 73  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 1  
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 73  
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                                  25                                  30

<210> 74  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 1  
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 74  
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

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<210> 75  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 1  
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 75  
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
           20                  25                  30

<210> 76  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 1  
 <223> Xaa = N-alpha-Me-His (N-alfa-methyl histidine)

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 76  
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
           20                  25                  30

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<400> 77
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1          5          10          15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20          25          30

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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
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<400> 78
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1          5          10          15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20          25          30

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<210> 79
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = D-Ala

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 79
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
          20             25             30

<210> 80
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 80
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
          20             25             30

<210> 81
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT

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<222> 2, 24, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 81  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Xaa Trp Leu Val Lys Xaa Arg  
                   20                  25                  30

<210> 82  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 19, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 82  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                  25                  30

<210> 83  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 10, 14  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 83  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly

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1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 84  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 10, 23, 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 84  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg  
 20 25 30

<210> 85  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen  
 <221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 14, 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 85  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg  
 20 25 30

<210> 86

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<221> VARIANT
<222> 2, 18, 29
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 88

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10						15	
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
		20					25					30			

<210> 89

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 89

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
		20					25					30			

<210> 90

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 90
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Xaa Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
      20             25             30

<210> 91
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 6
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 91
His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20             25             30

<210> 92
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 14
<223> Xaa = Cha (alpha-amino acid cyclohexylalanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

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<400> 92  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                  25                  30

<210> 93  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 27  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 93  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Xaa Lys Xaa Arg  
                   20                  25                  30

<210> 94  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 10,14  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 94

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 102077 " 9294560

His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 95  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 16  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 95  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 96  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 16, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 96  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 97  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

05625950  
 "0307"

<220>  
 <223> Mutagen  
  
 <221> VARIANT  
 <222> 2, 18, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)  
  
 <221> VARIANT  
 <222> 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)  
  
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 <223> this sequence has an amidated c-terminus  
  
 <400> 97  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Xaa Ala Lys Glu Phe Glu Ala Trp Xaa Val Lys Xaa Arg  
 20 25 30  
  
 <210> 98  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)  
  
 <221> VARIANT  
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 <400> 98  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Glu Xaa Xaa Lys Glu Phe Glu Ala Trp Xaa Val Lys Xaa Arg  
 20 25 30  
  
 <210> 99  
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<222> 2, 18, 19, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 10,14, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<222>

<223> this sequence has an amidated c-terminus

<400> 99

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Xaa	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10					15		
Glu	Xaa	Xaa	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 100

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus.

<400> 100

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 101

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

0909/03/00

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 101

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 102

<211> 30

<212> PRT

<213> Artificial Sequence

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<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 102

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 103

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 24

<223> Xaa = Aib (alpha-aminoisobutyric acid)

09857636-10001





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<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 105
His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
      20           25           30

<210> 106
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
<222> 14, 26
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<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 106
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
      20           25           30

<210> 107
<211> 30
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<221> VARIANT

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<222> 14,  
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<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 107  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 108  
 <211> 30  
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 <221> VARIANT  
 <222> 2  
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<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 108  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Lys Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 109  
 <211> 30  
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<220>  
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 <221> VARIANT  
 <222> 2, 18  
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 109

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10						15	
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 110

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 110

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 111

<211> 30

<212> PRT

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<220>

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<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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T020T " 9562560

<221> VARIANT  
 <222> 23, 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 111  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Xaa Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg  
 20 25 30

<210> 112  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 6  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 112  
 His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 113  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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0969636 " 9696360  
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<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 14  
 <223> Xaa = Cha (alfa-amino acid- cyclohexylalanine)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 113  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                  25                  30

<210> 114  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

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 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 27  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 114  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Xaa Lys Xaa Arg  
                   20                  25                  30

<210> 115  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

0957636 11001

<220>  
<223> Mutagen

<221> VARIANT  
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<221> VARIANT  
<222> 16, 29  
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
<222>  
<223> this sequence has an amidated c-terminus

<400> 115  
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa  
1 5 10 15  
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
20 25 30

<210> 116  
<211> 30  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Mutagen

<221> VARIANT  
<222> 2, 16  
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
<222> 29  
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
<222>  
<223> this sequence has an amidated c-terminus

<400> 116  
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Xaa  
1 5 10 15  
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
20 25 30

<210> 117  
<211> 30  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Mutagen

<221> VARIANT  
<222> 2

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T020T" 95975860

## <223> Mutagen

<221> VARIANT  
 <222> 2, 18  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 119  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
                   20                  25                  30

<210> 120  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 18, 19  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 120  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg  
                   20                  25                  30

09062536-10201



<210> 123

<211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = D-Lys

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 123  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa  
                   20                  25                  30

<210> 124  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 30  
 <223> Xaa = D-Arg

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 124  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa  
                   20                  25                  30

<210> 125  
 <211> 30

09857636 10201

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<210> 127
<211> 30
<212> PRT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)



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<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

<400> 131
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
          20           25           30

<210> 132
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222> 31
<223> Xaa = D-Ala

<221> VARIANT
<222>
<223> this sequence has a hydroxylated c-terminus

<400> 132
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
          20           25           30

<210> 133
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2,29,31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32

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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 133

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 134

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 134

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 135

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

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<223> Xaa = N-epsilon-tetradecanoyl-lysine



<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 137

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Gly	Xaa	Xaa	
			20				25						30		

<210> 138

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 138

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	
			20				25						30		

<210> 139

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 139

T0207" SE2560



<400> 143  
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                                  25                                  30

<210> 144

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 144

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 145

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 145

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 146

<211> 30

090636 10201

<212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 20  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 146  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 147  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 20  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 147  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

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 T0207T " 9292590

<210> 148  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 20  
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 148  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
                   20                  25                  30

<210> 149  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 20  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 149  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
                   20                  25                  30

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<210> 152
<211> 30
<212> PRT
<213> Artificial Sequence
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 154

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 155

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 155

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 156

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanoyl-lysine

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<223> this sequence has an amidated c-terminus

<400> 160

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
 20 25 30

<210> 161  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 20  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 161  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
 20 25 30

<210> 162  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 20  
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>

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<223> this sequence has an amidated c-terminus

<400> 162

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 163

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 163

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 164

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15  
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 167  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 167  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
 20 25 30

<210> 168  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 168  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
 20 25 30

<210> 169  
 <211> 30  
 <212> PRT

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 10201-9292880

## <223> Mutagen





<222> 28  
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 173  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
 20 25 30

<210> 174  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 174  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
 20 25 30

<210> 175  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222>

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<212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 180  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa  
                   20                  25                  30

<210> 181  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 181  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa  
                   20                  25                  30

<210> 182  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

098625360

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 182  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa  
 20 25 30

<210> 183  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 183  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 184  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> CONFLICT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 184  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
           20                  25                  30

<210> 185  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 185  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa  
           20                  25                  30

<210> 186  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly



<210> 191

<211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29, 31  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 191  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa  
                   20                  25                  30

<210> 192  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29, 31  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 192  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa  
                   20                  25                  30

<210> 193  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>

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<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 193

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 194

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> CONFLICT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 194

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 195

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT  
 <222> 32  
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 195  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa  
                   20                  25                  30

<210> 196  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 196  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
                   20                  25                  30

<210> 197  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

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<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 197

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 198

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 198

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 199

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> Xaa = N-epsilon-octanoyl-lysine

<400> 199

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 200

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 200

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 201

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 201

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

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<210> 202  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 202  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
                   20                  25                  30

<210> 203  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 203  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
                   20                  25                  30

<210> 204

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<211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 204  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
                   20                  25                  30

<210> 205  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 205  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

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20

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<210> 206  
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<220>  
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<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
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<400> 206  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1          5          10          15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
       20          25          30

<210> 207  
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<221> VARIANT  
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 <223> Xaa = N-epsilon-octanoyl-lysine

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<221> VARIANT

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<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 209

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 210

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 210

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 211

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<220>  
<223> Mutagen

<221> VARIANT  
 <222> 2  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 213  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
                   20                  25                  30

<210> 214  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

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<221> VARIANT  
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 214  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
                   20                  25                  30

<210> 215  
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 <212> PRT  
 <213> Artificial Sequence

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<220>  
<223> Mutagen

<221> VARIANT  
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<221> VARIANT  
<222> 28  
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
<222> 29  
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
<222>  
<223> this sequence has an amidated c-terminus

<400> 215  
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15  
Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
20 25 30

<210> 216  
<211> 30  
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<221> VARIANT  
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<221> VARIANT  
<222> 29  
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
<222>  
<223> this sequence has an amidated c-terminus

<400> 216  
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15  
Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
20 25 30

<210> 217  
<211> 30

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<400> 218
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
      20             25             30

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<210> 219  
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<220>  
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<221> VARIANT  
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<221> VARIANT  
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 219  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
                   20                  25                  30

<210> 220  
 <211> 30  
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 <213> Artificial Sequence

<220>  
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<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 220  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

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1                    5                    10                    15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa  
                  20                    25                    30

<210> 221  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 221  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                    5                    10                    15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa  
                  20                    25                    30

<210> 222  
 <211> 30  
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<220>  
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<221> VARIANT  
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<221> VARIANT  
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<221> VARIANT  
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

"T020T" 959/5350

<400> 222  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa  
                   20                  25                  30

<210> 223  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<221> VARIANT  
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<221> VARIANT  
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<221> VARIANT  
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 223  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa  
                   20                  25                  30

<210> 224  
 <211> 30  
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 <213> Artificial Sequence

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<221> VARIANT  
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<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

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<222> 30  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 226  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
           20                  25                  30

<210> 227  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 227  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
           20                  25                  30

<210> 228  
 <211> 30  
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 <213> Artificial Sequence

<220>  
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<221> VARIANT  
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<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 230  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 231  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen  
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<221> VARIANT  
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 231  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 232  
 <211> 30  
 <212> PRT  
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<220>  
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<210> 234
<211> 30
<212> PRT
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<220>
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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 234
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
          20           25           30

<210> 235
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 235
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
          20           25           30

<210> 236
<211> 30

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<400> 237
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
      20             25             30

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<210> 238  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 20  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222> 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 238  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
     1                    5                    10                    15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg  
             20                    25                    30

<210> 239  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 20  
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
 <222> 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 239  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

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1                    5                    10                    15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg  
                  20                    25                    30

<210> 240  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<221> VARIANT  
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<221> VARIANT  
 <222> 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 240  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                    5                    10                    15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
                  20                    25                    30

<210> 241  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
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<221> VARIANT  
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

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<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 243  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
                   20                  25                  30

<210> 244  
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 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
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<221> VARIANT  
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
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<400> 244  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
                   20                  25                  30

<210> 245  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
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<221> VARIANT  
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<221> VARIANT

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<222> 30
<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 245
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
      20           25           30

<210> 246
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 26
<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 246
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
      20           25           30

<210> 247
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 247

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 248

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 248

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 249

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<221> VARIANT  
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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 249  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa  
           20                  25                  30

<210> 250  
 <211> 30  
 <212> PRT  
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<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
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<221> VARIANT  
 <222> 26  
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT  
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
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<400> 250  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa  
           20                  25                  30

<210> 251  
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<221> VARIANT  
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<221> VARIANT  
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<221> VARIANT  
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<221> VARIANT  
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<400> 251  
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   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
                   20                  25                  30

<210> 252  
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<221> VARIANT  
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<400> 252  
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   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
                   20                  25                  30

<210> 253  
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<400> 253  
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1 5 10 15  
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
20 25 30

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<221> VARIANT  
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<400> 254  
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1 5 10 15  
Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
20 25 30

<210> 255  
<211> 30

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<400> 257  
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   1                  5                  10                  15  
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
                   20                  25                  30

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<400> 258  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
                   20                  25                  30

<210> 259  
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<221> VARIANT  
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095733-110201



<223> this sequence has an amidated c-terminus

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
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20 25 30

<213> Artificial Sequence

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<223> this sequence has an amidated c-terminus

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15  
Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
20 25 30

<213> Artificial Sequence

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<223> Xaa = N-epsilon-hexadecanoyl-lysine

<223> this sequence has an amidated c-terminus

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly







<212> PRT  
 <213> Artificial Sequence

<220>  
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<221> VARIANT  
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<400> 268  
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 1 5 10 15  
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
 20 25 30

<210> 269  
 <211> 30  
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<400> 269  
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 1 5 10 15  
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg  
 20 25 30

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<400> 270

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1				5					10				15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 271

<211> 30

<212> PRT

<213> Artificial Sequence

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<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

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<223> this sequence has an amidated c-terminus

<400> 271

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 272

<211> 30

<212> PRT

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<222> 30
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<221> VARIANT
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<400> 274
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 1           5           10           15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
          20           25           30

<210> 275
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<400> 275
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 1           5           10           15
Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
          20           25           30

<210> 276
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<212> PRT  
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<400> 281  
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   1                  5                  10                  15  
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg  
                   20                  25                  30

<210> 282  
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<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 282  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg  
                   20                  25                  30

<210> 283  
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 <212> PRT  
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<400> 283  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg  
                   20                  25                  30

<210> 284  
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT  
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<400> 284  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg  
                   20                  25                  30

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 <223> this sequence has an amidated c-terminus

<400> 285  
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   1                  5                  10                  15  
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                   20                  25                  30

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<400> 286  
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   1                  5                  10                  15  
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                   20                  25                  30

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<400> 287  
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                   20                  25                  30

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<400> 288  
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   1                  5                  10                  15  
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa  
                   20                  25                  30

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 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 289

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 290

<211> 30

<212> PRT

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<223> Xaa = N-epsilon-hexadecanoyl-lysine

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<223> this sequence has an amidated c-terminus

<400> 290

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

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<212> PRT

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<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

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<400> 291  
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   1                  5                  10                  15  
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
                   20                  25                  30

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<400> 292  
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 Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
                   20                  25                  30

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 1 5 10 15  
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
 20 25 30

<210> 294  
 <211> 30  
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<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 294  
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 1 5 10 15  
 Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
 20 25 30

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 <222> 30  
 <223> Xaa = N-epsilon-tetradecanoyl-lysine  
  
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 <223> this sequence has an amidated c-terminus  
  
 <400> 295  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
 20 25 30  
  
 <210> 296  
 <211> 30  
 <212> PRT  
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 <223> this sequence has an amidated c-terminus  
  
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 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Glu Xaa Ala Arg Glu Phe Ile Ala Trp Xaa Val Arg Xaa Xaa  
 20 25 30  
  
 <210> 297  
 <211> 30  
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 <213> Artificial Sequence  
  
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<223> Mutagen

<221> VARIANT

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<222> 30

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<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 297

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1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

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<211> 30

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<222> 30

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<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 298

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 299

<211> 30

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1020T 9294560

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 299

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25						30		

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<211> 30

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<223> Xaa = N alfa-HEPES-His  
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lfonic  
acid) -histidine

<221> VARIANT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 300

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25						30		

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<221> VARIANT
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<400> 302  
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 303  
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 histidine

<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 303  
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 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 304  
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 histidine

<221> VARIANT  
 <222> 29  
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
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<221> VARIANT
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<400> 306  
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 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 307  
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 <223> Xaa = N alfa-tetradecanoyl- histadine

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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 307  
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg  
 20 25 30

<210> 308  
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<221> VARIANT  
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<400> 308  
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 1 5 10 15  
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

"T020T" 989360

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<221> VARIANT
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<221> VARIANT
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<400> 309
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20           25           30

<210> 310
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<221> VARIANT
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<400> 310
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20           25           30

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<210> 311  
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 311  
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
 20 25 30

<210> 312  
 <211> 30  
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<221> VARIANT  
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<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 312  
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
 20 25 30

<210> 313  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

0085636-1004

<220>  
<223> Mutagen

<221> VARIANT  
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<221> VARIANT  
<222> 29  
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
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<223> this sequence has an amidated c-terminus

<400> 313  
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15  
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
20 25 30

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<221> VARIANT  
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<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT  
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<223> this sequence has an amidated c-terminus

<400> 314  
Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15  
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
20 25 30

<210> 315  
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003536-10201

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<220>
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<400> 315
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 1           5           10           15
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          20           25           30

<210> 316
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<221> VARIANT
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<221> VARIANT
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<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 316
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
          20           25           30

<210> 317
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

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<221> VARIANT  
 <222> 20  
 <223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 319  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
 20 25 30

<210> 320  
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 <212> PRT  
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<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 320  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
 20 25 30

<210> 321  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa = N-epsilon-dodecanesulfonyl- lysine

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<400> 323

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<400> 325
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20             25             30

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<210> 328
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>  
 <223> Mutagen  
  
 <221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)  
  
 <221> VARIANT  
 <222> 20  
 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines  
  
 <221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus  
  
 <400> 328  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
 20 25 30  
  
 <210> 329  
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 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Mutagen  
  
 <221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)  
  
 <221> VARIANT  
 <222> 28  
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines  
  
 <221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus  
  
 <400> 329  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
 20 25 30  
  
 <210> 330  
 <211> 30  
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<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 332
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
          20           25           30

<210> 333
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 333
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
          20           25           30

<210> 334
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

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<400> 336
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1          5          10          15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
      20          25          30

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<210> 339
<211> 32
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<220>  
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 <221> VARIANT  
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 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines  
  
 <221> VARIANT  
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 <223> this sequence has an amidated c-terminus  
  
 <400> 339  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa  
                   20                  25                  30  
  
 <210> 340  
 <211> 32  
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 <222> 2, 29, 31  
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 <221> VARIANT  
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 <223> Xaa = 1-(4-decyl-piperazine)- asparagines  
  
 <221> VARIANT  
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 <223> this sequence has an amidated c-terminus  
  
 <400> 340  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa  
                   20                  25                  30  
  
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 <211> 32  
 <212> PRT  
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 "0201" 929/5360

<222> 2, 29, 31  
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<221> VARIANT  
 <222> 32  
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<400> 341  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa  
           20                  25                  30

<210> 342  
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<221> VARIANT  
 <222> 2, 29, 31  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
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 <223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 342  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa Xaa  
           20                  25                  30

<210> 343  
 <211> 32  
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<220>  
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<221> VARIANT  
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<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 343

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Xaa	Xaa
			20				25						30		

<210> 344

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<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 344

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25						30		

<210> 345

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<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
1 5 10 15  
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg

20

25

30

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<220>  
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<221> VARIANT  
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<221> VARIANT  
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 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT  
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<400> 348  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
                   20                  25                  30

<210> 349  
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<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 349  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
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<210> 350  
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## <223> Mutagen





<222> 30  
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<221> VARIANT  
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<400> 354  
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 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
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<221> VARIANT  
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 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 355  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 356  
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<220>  
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<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
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 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> CONFLICT

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<210> 361

<211> 32  
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<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 361  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa  
 20 25 30

<210> 362  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<221> VARIANT  
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<221> VARIANT  
 <222> 32  
 <223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 362  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa  
 20 25 30

<210> 363  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>

"T020T" "92945960





<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 367

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 368

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =  
N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 368

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 369

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =  
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<221> VARIANT

<222>

095536-10201



<223> this sequence has an amidated c-terminus

<400> 369

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 370

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =  
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)ly  
sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 370

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 371

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =  
N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly  
sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

0957636 "10201" 957636

<400> 371  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
                   20                  25                  30

<210> 372  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa =  
       N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 372  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
                   20                  25                  30

<210> 373  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa =  
       N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi  
       ne

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 373

0956941001



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      1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
      20             25             30

```

<210> 376  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa =  
       N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

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<400> 376
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20             25             30

```

<210> 377  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa =  
       N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi  
       ne

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

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<400> 377
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa

```

005566 994400



<210> 380  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa =  
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi  
 ne

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 380  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa  
 20 25 30

<210> 381  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa =  
 N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)ly  
 sine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 381  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa  
 20 25 30

<210> 382

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 002076-9894860

<211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa =  
     N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly  
     sine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 382  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa  
           20                  25                  30

<210> 383  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Mutagen

<221> VARIANT  
 <222> 2, 29, 31  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 32  
 <223> Xaa =  
     N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 383  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
   1                  5                  10                  15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa  
           20                  25                  30

<210> 384  
 <211> 32  
 <212> PRT

0957636-10201





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<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29, 31
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =
      N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly
      sine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 386
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
      20           25           30

<210> 387
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 20
<223> Xaa =
      N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 387
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1           5           10           15
Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20           25           30

<210> 388
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

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<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =  
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 388

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 389

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =  
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 389

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 390

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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09857636 10201

<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 20  
 <223> Xaa =  
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT  
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 <223> this sequence has an amidated c-terminus

<400> 390  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg  
 20 25 30

<210> 391  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 28  
 <223> Xaa =  
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 391  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg  
 20 25 30

<210> 392  
 <211> 30  
 <212> PRT  
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<220>  
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<221> VARIANT

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<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa =
      N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
      ne

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 392
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1          5          10          15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
      20          25          30

<210> 393
<211> 30
<212> PRT
<213> Artificial Sequence

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<221> VARIANT
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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 28
<223> Xaa =
      N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)ly
      sine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 393
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1          5          10          15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
      20          25          30

<210> 394
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 2, 29

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa =  
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 396  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 397  
 <211> 30  
 <212> PRT  
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<220>  
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 <221> VARIANT  
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<221> VARIANT  
 <222> 30  
 <223> Xaa =  
 N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an amidated c-terminus

<400> 397  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 398  
 <211> 30  
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 <221> VARIANT  
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<221> VARIANT

0084636-10301

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<222> 30
<223> Xaa =
      N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly
      sine

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 398
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20           25           30

<210> 399
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =
      N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
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<223> this sequence has an amidated c-terminus

<400> 399
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
      20           25           30

<210> 400
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
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<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 32
<223> Xaa =

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sine

&lt;221&gt; VARIANT

&lt;222&gt;

&lt;223&gt; this sequence has an amidated c-terminus

&lt;400&gt; 402

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20					25					30			

&lt;210&gt; 403

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Mutagen

&lt;221&gt; VARIANT

&lt;222&gt; 2, 29, 31

&lt;223&gt; Xaa = Aib (alpha-aminoisobutyric acid)

&lt;221&gt; VARIANT

&lt;222&gt; 32

&lt;223&gt; Xaa =

N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

&lt;221&gt; VARIANT

&lt;222&gt;

&lt;223&gt; this sequence has an amidated c-terminus

&lt;400&gt; 403

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20					25					30			

&lt;210&gt; 404

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Mutagen

&lt;221&gt; VARIANT

&lt;222&gt; 2, 29, 31

&lt;223&gt; Xaa = Aib (alpha-aminoisobutyric acid)

&lt;221&gt; VARIANT

&lt;222&gt; 32

&lt;223&gt; Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

T0207" DE 94550

Figure 1 consists of 12 bar charts, labeled (a) through (l), arranged vertically. Each chart displays the percentage of total protein (Y-axis, 0 to 100) for various protein types (X-axis) across different conditions (1 to 12). The protein types are labeled as A, B, C, D, E, F, G, H, I, J, K, and L. The conditions are labeled as 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12. The charts show varying distributions of protein types across the fractions under different conditions.

<222>  
 <223> this sequence has an amidated c-terminus

<400> 406  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa  
 20 25 30

<210> 407  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<221> VARIANT  
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT  
 <222>  
 <223> this sequence has an hydroxydated c-terminus

<400> 407  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly  
 1 5 10 15  
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa  
 20 25 30

<210> 408  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

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<221> VARIANT  
 <222> 2, 29  
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT  
 <222> 30  
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT  
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 <223> this sequence has an hydroxydated c-terminus

<400> 408  
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

TEOET = 9E9Z860

Parameter	Value	Unit
Initial concentration	1.0	g/L
Initial pH	7.0	
Temperature	25.0	°C
Time	0.0	h
Time	1.0	h
Time	2.0	h
Time	3.0	h
Time	4.0	h
Time	5.0	h
Time	6.0	h
Time	7.0	h
Time	8.0	h
Time	9.0	h
Time	10.0	h
Time	11.0	h
Time	12.0	h
Time	13.0	h
Time	14.0	h
Time	15.0	h
Time	16.0	h
Time	17.0	h
Time	18.0	h
Time	19.0	h
Time	20.0	h
Time	21.0	h
Time	22.0	h
Time	23.0	h
Time	24.0	h
Time	25.0	h
Time	26.0	h
Time	27.0	h
Time	28.0	h
Time	29.0	h
Time	30.0	h
Time	31.0	h
Time	32.0	h
Time	33.0	h
Time	34.0	h
Time	35.0	h
Time	36.0	h
Time	37.0	h
Time	38.0	h
Time	39.0	h
Time	40.0	h
Time	41.0	h
Time	42.0	h
Time	43.0	h
Time	44.0	h
Time	45.0	h
Time	46.0	h
Time	47.0	h
Time	48.0	h
Time	49.0	h
Time	50.0	h
Time	51.0	h
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<221> VARIANT  
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<221> VARIANT
<222> 3
<223> Xaa = Glu, N-Me-Glu, N-Me- Asp, or Asp
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<221> VARIANT  
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<223> Xaa = Gly, Acc, beta-Ala, or Aib

<221> VARIANT  
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<223> Xaa = Thr, or Ser

<221> VARIANT  
<222> 6  
<223> Xaa = Phe, Acc, Aic, Aib, 3-Pal, 4- Pal, beta-Nal, Cha, Trp, or X1-Phe

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<223> Xaa = Thr, or Ser

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<222> 8  
<223> Xaa = Ser, or Aib

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<223> Xaa = Asp, or Glu

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<223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Abu, Ala, or Cha

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<223> Xaa = Ser, or Thr

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<223> Xaa = Tyr, Cha, Phe, 3-Pal, 4-Pal, Acc, beta-Nal, or X1-Phe

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<223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Val, Phe, or X1-Phe

<221> VARIANT  
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<223> Xaa = Glu, or Asp

<221> VARIANT  
<222> 16  
<223> Xaa = Gly, Acc, beta-Ala, Glu, or Aib

<221> VARIANT  
<222> 17  
<223> Xaa = Gln, Asp, Asn, or Glu

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<221> VARIANT  
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 <223> Xaa = Ala, Aib, Val, Abu, Tle, or Acc

<221> VARIANT  
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 <223> Xaa = Ala, Aib, Val, Abu, Tle, Acc, Lys, Arg, hArg, Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sub>10</sub>-R<sub>11</sub>))-C(O), OR NH-CH((CH<sub>2</sub>)<sub>e</sub>-X<sub>3</sub>)-C(O)

<221> VARIANT  
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 <223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sub>10</sub>-R<sub>11</sub>))-C(O), OR NH-CH((CH<sub>2</sub>)<sub>e</sub>-X<sub>3</sub>)-C(O)

<221> VARIANT  
 <222> 21  
 <223> Xaa = Glu Asp, Leu, Aib, or Lys

<221> VARIANT  
 <222> 22  
 <223> Xaa = Phe, Pal, beta-Nal, X1-Phe, Aic, Acc, Aib, Cha, or Trp

<221> VARIANT  
 <222> 23  
 <223> Xaa = Ile, Acc, Aib, Leu, Nle, Cha, Tle, Val, Abu, Ala, or Phe

<221> VARIANT  
 <222> 24  
 <223> Xaa = Ala, Aib, or Acc

<221> VARIANT  
 <222> 25  
 <223> Xaa = Trp, beta-Nal, 3-Pal, 4-Pal, Phe, Acc, Aib, or Cha

<221> VARIANT  
 <222> 26  
 <223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Phe, X1-Phe, or Ala

<221> VARIANT  
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 <223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Cha, Ala, Phe, Abu, Lys, or X1-Phe

<221> VARIANT  
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 <223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sub>10</sub>-R<sub>11</sub>))-C(O), or NH-CH((CH<sub>2</sub>)<sub>e</sub>-X<sub>3</sub>)-C(O)

<221> VARIANT  
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 <223> Xaa = Gly, beta-Ala, D-Ala, Gaba, Ava, NH-(CH<sub>2</sub>)<sub>m</sub>-C(O), Aib, Acc or D-amino acid

<221> VARIANT  
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 <223> Xaa = L-or D-Arg, D-or L-Lys, D-or L-hArg, D-or L-Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sub>10</sub>-R<sub>11</sub>))-C(O), NH-CH((CH<sub>2</sub>)<sub>e</sub>-X<sub>3</sub>)-C(O) or deleted

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 102075-92975850

<221> VARIANT

<222> 31

<223> Xaa = Gly, beta-Ala, Gaba, Ava, Aib, Acc, Ado, Arg, Asp, Aun, Aec, NH-(CH<sub>2</sub>)<sub>m</sub>-C(O), HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sub>10</sub>-R<sub>11</sub>))-C(O), a D-amino acid, or deleted

<221> VARIANT

<222> 32

<223> Xaa = D-or L-Lys, D-or L-Arg, D-or L-hArg, D-or L-Orn, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sub>10</sub>-R<sub>11</sub>))-C(O), NH-CH((CH<sub>2</sub>)<sub>e</sub>-X<sub>3</sub>)-C(O)Ava, Ado, Aec, or deleted

<221> VARIANT

<222> 33

<223> Xaa = D-or L-Lys, D-or L-Arg, HN-CH((CH<sub>2</sub>)<sub>n</sub>-N(R<sub>10</sub>-R<sub>11</sub>))-C(O), Ava, Ado, or Aec

<400> 412

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
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Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
				20				25						30		
Xaa																

<210> 413

<211> 31

<212> PRT

<213> Homo sapiens

<400> 413

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	
			20					25					30		

<210> 414

<211> 32

<212> PRT

<213> Homo sapiens

<400> 414

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	Arg
			20					25					30		

<210> 415

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 13

<223> Xaa = 125I radiolabeled Tyr

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&lt;400&gt; 415

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Xaa	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg		
			20					25					30		

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